

Amendments to Claims

1. (Previously Presented) A method of detecting the presence of an oncogenic human papilloma virus (HPV) protein in a sample, said method comprising:
contacting a sample suspected of containing an oncogenic HPV E6 protein with a PDZ domain polypeptide; and
detecting any binding of said oncogenic HPV E6 protein in said sample to said PDZ domain polypeptide;
wherein binding of said oncogenic HPV E6 protein to said PDZ domain polypeptide indicates the presence of an oncogenic HPV E6 protein in said sample and
wherein said PDZ domain polypeptide is less than 1000 amino acids in length and comprises the amino acid sequence of MAGI-1 PDZ domain 2.
2. (Cancelled)
3. (Previously Presented) The method of claim 1, wherein said PDZ domain peptide binds to HPV E6 protein encoded by HPV strains 16, 18, and 45.
4. (Original) The method of claim 1, wherein sample is contacted with multiple PDZ domain polypeptides.
5. (Previously Presented) The method of claim 1, wherein said PDZ domain polypeptide is a fusion protein.
6. (Currently Amended) A system for detecting the presence of an oncogenic human papilloma virus (HPV) polypeptide in a sample, said ~~method~~ system comprising:
a first and a second binding partner for an oncogenic HPV E6 polypeptide,
wherein said first binding partner is a PDZ domain polypeptide and at least one of said binding partners is attached to a solid support and

wherein said PDZ domain polypeptide is less than 1000 amino acids in length and comprises the amino acid sequence of MAGI-1 PDZ domain 2.

7. (Original) The system of claim 6, wherein said second binding partner is an antibody against said oncogenic HPV E6 polypeptide.

8. (Original) The system of claim 7, wherein at least one of said binding partners is labeled.

9. (Cancelled)

10. (Previously Presented) A method for determining if a subject is infected with an oncogenic strain of human papilloma virus (HPV), said method comprising:

detecting the presence of oncogenic HPV E6 protein in a sample from said subject using an oncogenic HPV E6 protein-binding PDZ domain polypeptide,

wherein the presence of oncogenic HPV E6 protein indicates that the subject is infected with an oncogenic strain of HPV and

wherein said PDZ domain polypeptide is less than 1000 amino acids in length and comprises the amino acid sequence of MAGI-1 PDZ domain 2.

11. (Original) The method of claim 10, wherein said detecting step further comprises detecting the presence of said oncogenic HPV E6 protein using an antibody that specifically binds to said oncogenic HPV E6 protein.

12. (Original) The method of claim 10, wherein said sample is a cervical scrape, biopsy, or lavage.

13. (Original) The method of claim 12, wherein said method is an ELISA or a sandwich assay.

14. (Original) The method of claim 10, wherein said sample is prepared in the presence of a proteasome inhibitor.

15. (Previously Presented) The method of claim 10, wherein said method is performed as a part of a test for cervical cancer.

16. (Withdrawn) A kit for testing for the presence of oncogenic HPV E6 protein, the kit comprising first and second binding partners for said oncogenic HPV E6 protein, wherein said first binding partner is a PDZ domain protein.

17. (Withdrawn) The kit of claim 14, wherein at least one of the binding partners is attached to a solid support.

18. (Withdrawn) The kit of claim 16, wherein said solid support is a test strip.

19. (Withdrawn) The kit of claim 16, wherein said second binding partner is an antibody.

20. (Withdrawn) The kit of claim 16, further comprising instructions for detecting the presence of an oncogenic HPV E6 protein in a sample.

21. (Currently Amended) The method of claim 1, 6, or 10, wherein said PDZ domain polypeptide is less than 500 amino acids in length.

22. (Currently Amended) The method of claim 1, 6, or 10, wherein said PDZ domain polypeptide is less than 200 amino acids in length.

23. (Canceled)

24. (Currently Amended) A method of detecting the presence of an oncogenic human papilloma virus (HPV) protein in a sample, said method comprising:

contacting a sample suspected of containing an oncogenic HPV E6 protein with a fusion protein ~~comprising a heterologous domain and that is a fusion of~~ a PDZ polypeptide ~~that is of~~ less

than 1000 amino acids in length and ~~comprises~~ comprising the amino acid sequence of MAGI-1 PDZ domain 2 with heterologous domain; and

detecting binding of said oncogenic HPV E6 protein in said sample to MAGI-1 PDZ domain 2 in said fusion protein, wherein binding of said oncogenic HPV E6 protein to MAGI-1 PDZ domain 2 in said fusion protein indicates the presence of an oncogenic HPV E6 protein in said sample.

25. (Previously Presented) The method of claim 24, wherein PDZ polypeptide is less than 200 amino acids in length.

26. (Previously Presented) The method of claim 1, 6, 10 or 24, wherein the oncogenic HPV is selected from the group consisting of HPV strain 16, 18, 31, 35, 30, 39, 45, 51, 52, 56, 59, 58, 33, 66, 68, 69, 26, 53, 66, 73, and 82.

Please add the following new claims:

27. (New)) The system of claim 6, wherein said PDZ domain polypeptide is less than 500 amino acids in length.

28. (New) The system of claim 6, wherein said PDZ domain polypeptide is less than 200 amino acids in length.